

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Chen et al.

Serial No.: 08/856,116

Filed: May 14, 1997

For: Reliability Barrier Integration
For CU Application

Group Art Unit: 2814

Examiner: Bernard Souw



24/7 (NE)
S. Ranges
12/7/00
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DEC 06 2000
TECHNOLOGY CENTER 2800

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

CERTIFICATE OF MAILING 37 C.F.R. 1.8	
I hereby certify that this correspondence is being deposited on November 28, 2000, with the U. S. Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.	
11/28/00 Date	<i>Kent R. Mink</i> Signature

SECOND RESPONSE TO FINAL OFFICE ACTION DATED JUNE 29, 2000

In response to the Final Office Action dated June 29, 2000, having a shortened statutory period for response extended two months and set to expire on November 29, 2000, please enter the following amendments.

IN THE CLAIMS:

Please cancel claims 1-8, 11-14, 20, 22, and 24 without prejudice, and amend the claims as follows:

1. (Canceled) A method of filling a feature formed in a dielectric layer, comprising:
 - a) depositing a generally conformal first barrier layer on a bottom and sidewalls of the feature;
 - b) removing the first barrier layer formed on the bottom of the feature;
 - c) depositing a second barrier layer on substantially the bottom of the feature using a directional sputtering technique, wherein the second barrier layer comprises a material selected from a group consisting of Ta, TaN, TaSiN, TiSiN, and combinations thereof; and
 - d) depositing a metal layer in the feature, wherein the metal layer comprises copper.